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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/858,268	05/15/2001	Donald J. Ethen	RA-5388	2684

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EXAMINER

PHAM, KHANH B

ART UNIT	PAPER NUMBER
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2167

DATE MAILED: 05/17/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/858,268

Applicant(s)

ETHEN ET AL.

Examiner

Khanh B. Pham

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 December 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☒ Claim(s) 6 and 7 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Appeal Brief

1. In view of the Appeal Brief filed on December 21, 2004, PROSECUTION IS HEREBY REOPENED. **A new ground of rejection** is set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) request reinstatement of the appeal.

If reinstatement of the appeal is requested, such request must be accompanied by a supplemental appeal brief, but no new amendments, affidavits (37 CFR 1.130, 1.131 or 1.132) or other evidence are permitted. See 37 CFR 1.193(b)(2).

Claim Objections

2. **Claims 6-7** are objected to because of the following informalities: the languages of claims 6, 7 are redundant. The limitations "wherein the computing arrangement further includes a host data processing system coupled to a data storage system, and an operations processor coupled to the host and to the data storage system" are already recited in claim 4 and should not be repeated. Appropriate correction is required.

Claim Rejections - 35 USC § 102

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. **Claims 1-6, 8-11, 13-16** are rejected under 35 U.S.C. 102(e) as being anticipated by Nishigaya et al. (US 2001/0010056 A1), hereinafter "Nishigaya".

As per claims 1, Nishigaya teaches a computer-implemented method for automating operations of a computing arrangement coupled to a message processor (Fig. 1) comprising:

- "establishing a pattern database including a plurality of pattern definitions and response definitions" at page 3, [0057] and Fig. 1, element 21;
- "each pattern definition being associated with one or more associated response definitions" at page 3, [0057] and Fig. , element 21;
- "one or more of the response definitions including one or more commands and instructions for queuing command to a command queue having storage available for a plurality of commands" at page 4, [0069];

- “searching the pattern database for pattern definitions that match the message character string” at page 4, [0065] and Fig. 4;
- “for the pattern definition that match the messages, adding associated commands to the command queue in processing the response definitions” at page 4, [0069] and Fig. 6;
- “dequeuing commands from the command queue and issuing the commands to the computing arrangement” at page 5, [0070], [0075]

As per claim 2, Nishigaya teaches the method of claim 1, wherein

- “the pattern database further includes a pattern definition that matches a command prompt message” at page 3, [0057];
- “and further comprising dequeuing a command from the command queue and submitting the command to the computing arrangement in processing the response definition associated with the pattern definition that matches a command prompt message” at page 5, [0075],

As per claim 3, Nishigaya teaches the method of claim 1, wherein :

- “the computing arrangement further includes a host data processing system coupled to a data storage system” at Fig. 14, element 54;
- “and an operations processor coupled to the host and to the data storage system” at Fig. 14, element 51;
- “and the plurality of pattern definition includes a first definition matching a selected first message from the host, the first message associated with a

Art Unit: 2167

selected high-level operation of the data storage system” at page 6, [0106] - [0130];

- “the pattern definition further including a plurality of definition matching selected messages from the data storage system generated in performing the high-level operation and having associated responses that are commands required for the high-level operation” at page 6, [0106] - [0130];

As per claims 4, 11, Nishigaya teaches the method of claims 1, 8, wherein:

- “the computer arrangement further includes a host data processing system coupled to a data storage system, and an operation processor coupled to the host and to the data storage system” at Fig. 14.
- “defining a plurality of command queue data structures in the pattern database” at page 4, [0069] and page 8, [0189]
- “each command queue having a priority level relative to the other command queues and having storage available for a plurality of commands” at page 8, [0188];
- “for one or more pattern definition that match the messages, selecting the command queues as selected command queues and adding the one or more associated responses to the selected command queues responsive to instruction associated with the pattern definition” at page 4, [0069]
- “for a pattern definition that matches a command prompt message from the data storage system, dequeuing responses from the command queues in priority

order and submitting the commands to the data storage system” at page 5, [0075].

As per claims 5, 9, Nishigaya teaches the method of claims 4, 8, wherein

- “the pattern database further includes a pattern definition that matches a command prompt message” at page 3, [0057];
- “and further comprising dequeuing a command from the command queue and submitting the command to the computing arrangement in processing the response definition associated with the pattern definition that matches a command prompt message” at page 5, [0070], [0075].

As per claims 6, 10, Nishigaya teaches the method of claims 5, 9, wherein:

- “the computer arrangement further includes a host data processing system coupled to a data storage system, and an operation processor coupled to the host and to the data storage system” at Fig. 14;
- “the plurality of pattern definitions includes a first definition matching a selected first message from the host” at page 3, [0057] - [0058],
- “the first message associated with a selected high-level operation of the data storage system”
- “the pattern definition further including a plurality of definitions matching selected messages from the data storage system generated in performing the high-level operation and having associated response that are commands required for the high-level operation” at

As per claim 8, Nishigaya teaches the method of claim 1, further comprising:

Art Unit: 2167

- “defining the command queue as a character string” at page 6, [0106] - [0110];
- “adding character strings representing the commands to the command queue” at page 4, [0069];
- “delimiting the character strings with a selected character” at page 6, [0106] - [0110];

The limitations of claims 13-16 have been discussed in the rejection of claims 1-6, 8-11 above. Claims 13-16 are therefore rejected by the same reasons.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. **Claims 7, 12** are rejected under 35 U.S.C. 103(a) as being unpatentable over Nishigaya et al. as applied to claims 1-6, 8-11, 13-16 above, and in view of Li et al. (US 6,374,207 B1), hereinafter "Li".

As per claims 7, 12, Nishigaya teaches the method of claims 6, 8 wherein

- "the computer arrangement further includes a host data processing system coupled to a data storage system, and an operation processor coupled to the host and to the data storage system" at Fig. 14
- "establishing a connection between the operation processor and the data storage system; transmitting the command prompt message from the data storage system to the operation processor; submitting the commands to the data storage system " at page 8, [0178] - [0184];

The different between Nishigaya and the invention of claims 7, 12 is that Nishigaya does not explicitly teach "establishing a terminal emulation session" as claimed. However, it is well known in the art, as exemplary by Li to establish a connection between the operation processor and the data storage using terminal emulation session (Col.1 lines 10-65). Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to implement Nishigaya method employing terminal emulation session to establish a connection between the operation processor and the data storage device, in order to improve the interaction between a client and a resource by allowing accessing and sending command to the resource remotely.

Response to Arguments

8. Applicant's arguments with respect to claims 1-16 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

9. The prior art made of record, listed on form PTO-892, and not relied upon, if any, is considered pertinent to applicant's disclosure.

If a reference indicated as being mailed on PTO-FORM 892 has not been enclosed in this action, please contact Lisa Craney whose telephone number is **(571) 272-3574** for faster service.

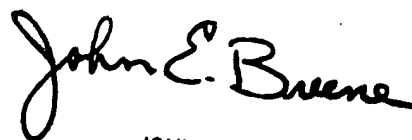
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khanh B. Pham whose telephone number is (571) 272-4116. The examiner can normally be reached on Monday through Friday 7:30am to 4:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John E. Breene can be reached on (571) 272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Khanh B. Pham
Examiner
Art Unit 2167

May 16, 2005



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